Writing for *Park Science:* Author Guidelines
Revised 1 May 2008

Park Science relies upon and encourages applied scientists and resource managers to identify and develop innovative, practical, and compelling articles that link research and resource management. Prospective authors are encouraged to query the editor about an article idea prior to developing a draft. See "Submitting a Manuscript," below, for guidance in developing a proposal. Table 1 is a complete list of article types, target lengths, and requirements for illustrations, abstracts, and key words.

Publication Purpose
Park Science is a research and resource management bulletin of the U.S. National Park Service that reports the implications of recent and ongoing natural and social science and related cultural research for park planning, management, and policy. It is published three times annually, in the spring, summer, and fall/winter, by the Natural Resource Program Center, Office of Education and Outreach. Thematic issues that explore a topic in depth are published occasionally.

Emphasis
Articles are easy-to-understand, field-oriented accounts of applied research and resource management. They translate the scientific findings of natural or social science and related cultural research into usable knowledge for park planning and the development of sound management practices and policies for natural resources and visitor enjoyment.

Style
Park Science combines magazine- and journal-style design and content, including richly illustrated popular science features and resource management news as well as traditional reports of original research. Articles explore solutions to park management problems through the application of science. They should describe a scientific process, technique, or discovery that is of substantial novelty, practicality, or refinement and is of broad value or interest to park managers. Research findings should be told in such a way that generalists can grasp their significance and application, for instance through the use of illustrative examples, compelling stories, anecdotes, and nontechnical language.

Articles should be written primarily in the active voice and in the first- or third-person, as prescribed (see table 1), using lay language; sexist language, provincialism, jargon, and acronyms should be avoided. Measurements should be reported in the units used in the study, followed by their metric or English equivalents. Citations should be given in the text using the author-date system and followed at the end of the article by a brief reference list giving complete information for the author-date citation. Please note that space for references is limited. *Park Science* style is based generally on *The Chicago Manual of Style*, 15th edition. Contributors should refer to the PDF publication "Editorial Style Guide for *Park Science*" for a detailed explanation.

Audience

Park Science serves a broad audience of national park and protected area managers and scientists and provides public outreach. The principal audience is park superintendents, resource managers, natural and social science researchers, interpreters, maintenance staffs, visitor and resource protection rangers, and other technical and nontechnical personnel of the National Park Service and its many partners.

Submitting a Manuscript

Article types and requirements are described in table 1. Though it is not required, you may wish to prepare an article proposal prior to developing a draft. The following checklist serves as a proposal template and may be useful for planning articles:

1. Determine which category best fits the proposed article (see table 1).

2. Develop an accurate, concise, and interesting title.

3. Specify the central message to be conveyed.

4. Describe the management problem(s) or issue(s) to be analyzed.

5. Give a brief account of the state of the science in relation to the management issue(s).

6. Relate the management implications of the research or project and explain why they are important.

7. Suggest how the scientific discussion might apply to the management of other national parks.

Author information

Include complete contact information for the author(s): name, position, park area or other affiliation, mailing address, phone number, and e-mail address. If you are the first author, indicate your preference (or none) for the publication of contact information in *Park Science*.

Key words, abstract, and article description

Include a brief list of key words, an abstract, and a one- or two-sentence article summary (descriptive blurb), as required (see table 1). Key words identify the main topic and other key concepts. Though they are not published with all article types, key words are used to enhance the search function on the *Park Science* Web site. The abstract is a noncritical synthesis of the research or project's purpose, scope, methods, results, and significant findings and conclusions. It is published with "Research Reports" and "Case Studies," as applicable. See the "Editorial Style Guide for *Park Science*" for a detailed description of the components of an abstract. The one- or two-sentence summary describes the article in a popular style in order to generate interest among potential readers (for examples, see the table of contents of recent issues of *Park Science*). It should be brief and enticing and may highlight the purpose of the investigation, those involved, the significance of the findings, and how they can be applied to park management. The blurb may be edited and, for many article types, it will be published in the table of contents following the article title.

Transmssion

E-mail manuscripts and proposals to the editor. Format them simply: single-spaced, left-justified, in 11-point Times New Roman type; prepare illustrations as described below. Do not embed graphics in the word-processing document; send them separately. Use multiple e-mails to forward file attachments, such as photos, that total more than 10 MB; contact the editor to arrange FTP transfer of digital files that are larger than 10 MB. If you are shipping a CD-ROM, label it with the article title and authors' names. Identify files by figure number (e.g., fig. 1) and refer to their location in the manuscript. Indicate whether materials should be returned.

Deadlines

Issue	Manuscript Due Date	Issue Release Date
Spring	1 November	April
Summer	1 March	July
Fall/Winter	1 July	November/December

Review and Acceptance

Prior to submitting a manuscript to *Park Science*, seek review by appropriate NPS staff: area manager (superintendent and resource manager), associate regional director for natural resources, Inventory and Monitoring (I&M) network coordinator, Cooperative Ecosystem Studies Unit (CESU) research coordinator, Research Learning Center (RLC) director, or subject-matter expert. Articles concerning primarily technical support programs of the Natural Resource Program Center (NRPC) should be reviewed by the appropriate NRPC division chief before submission. The review history should be described briefly along with the manuscript submission.

Once submitted, manuscripts are subject to review by the editor, editorial board, and subject-matter experts for clarity, completeness, usefulness, scientific and technical soundness, and relevance to NPS policy. Evaluation and notification of acceptance usually takes two to four weeks; the subsequent editorial process entails approximately three months. Editors and authors will work closely on revisions for grammar, clarity, style, and substance. On occasion the editor may suggest that an article be written or rewritten by *Park Science* staff based on information or excerpted material provided by the contributor/subject-matter expert. Initial acceptance or assignment of a solicitation/commission does not guarantee publication.

Illustrations

If possible, submit several color illustrations that reinforce the article's main points by showing personnel at work, project equipment in use, field techniques, representative park values being preserved, locator maps, species "portraits," and tables of pertinent data. Photographs, line art, maps, charts, graphs, tables, and technical drawings are all acceptable formats. See table 1 for further guidance on illustrations.

Captions and Credits

Include a caption for each illustration and describe the relationship of the image to the subject of the article. Consult the "Editorial Style Guide for *Park Science*" for general guidance in preparing captions and recent editions of *Park Science* for specific examples. Provide any necessary credits for illustrations and secure and forward copyright permissions as needed.

Format for Illustrations

Color digital photographs are acceptable, but only the best-quality and highest-resolution images are reproducible in the print edition. If possible, make digital images at 300-pixels-per-inch resolution and save them in TIF or another format that does not discard photographic information because of file compression. Note that digital photos saved in JPG format may have artifacts introduced by the compression process. To avoid this, photographers should set the camera to the highest-quality image setting, which yields the largest file size, and forward those original camera files. Original color slides and prints are also acceptable. Forward any drawings, such as line art, in their original digital format or as a high-quality color photocopy.

Transmit computer-generated illustrations, such as charts and graphs in their native file format (e.g., Microsoft Excel or Adobe Illustrator), accompanied by a color printout (approximately 8 by 10 inches in size) and the data, so that they can be redrawn in-house, if necessary. Forward other digital drawings, including GIS maps, in digital (Adobe EPS, if possible) and laser-printed formats. Export GIS maps in color at 600-pixel-per-inch resolution at approximately 8 by 10 inches Preserve layers to allow subsequent editing of labels. Save color information with the file (i.e., do not convert to gray scale).

Proposing a Thematic Issue

On occasion *Park Science* publishes thematic issues that explore a topic in depth. If you are interested in developing content for a theme issue, submit a one- to two-page prospectus that identifies the following:

1. The proposed topic or central focus and justification for its treatment as a theme issue

2. Guest editor(s) to help coordinate issue planning, author identification, and article writing

3. An outline of proposed content that includes departments and articles (see table 1) discussing diverse aspects of the topic in relation to park management and various National Park System units

4. Time frame

E-mail the proposal to the editor approximately 18 months before the desired publication date.

Contact the Editor

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Office of Education and Outreach

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Table 1. Article requirements for *Park Science*

Article Type	Description	Purpose or Possible Topics	Style and Design	Length	Illustrations
Features	Field-oriented, full-length articles and thematic sections about applied science, original research, and related stories.	Reports the implications of recent and ongoing natural and social science and related cultural research for park planning, management, and policy.	Nontechnical language. Easy to understand. Mix of magazine-like and conservative designs.		
Case Study	Summary and analysis of completed field projects designed to remedy resource management problems. Attributed to author(s). Submit with brief list of key words, abstract, and one- or two-sentence article summary (i.e., descriptive blurb).	Targets innovative solutions. Draws upon examples to illustrate key concepts. Shares lessons learned (successes and failures). Example: completed restoration project.	First- or third-person. Section headers. Reference listings limited to 10, as practicable. Magazine- or journal-like design (depending on topic and treatment).	650–2,500 words	Photos and other illustrations (e.g., maps, line drawings, graphs, and charts)
In Focus	A compilation of brief, related articles that explore a topic. Attributed to author(s). Submit with brief list of key words and one- or two-sentence article summary (i.e., descriptive blurb).	Topics of high interest to natural resource managers, such as new initiatives or programs, and progress and developments with established programs. May include an overview article and several illustrative "sidebars." Topical examples: marine resource protection, coastal watershed assessments, climate change, wildlife diseases, and integration of I&M data into management.	Third-person. Section headers. Magazine-like design unifies articles as a section (e.g., common background color).	350–750 words each; 3–6 articles in total	Photos and other illustrations.

Article Type	Description	Purpose or Possible Topics	Style and Design	Length	Illustrations
Research Report	Presentations of original research with implications for park management, planning, and policy. Attributed to author(s). Submit with brief list of key words, abstract, and one- or two-sentence article summary (i.e., descriptive blurb).	Documents and interprets significant findings from scientific studies conducted in the National Park System. Highlights translation of scientific findings into usable knowledge for park managers.	Traditionally organized into sections such as introduction, methods, results, discussion, and conclusions. Written for a general audience. Avoids jargon. First- or third-person. Reference lists limited to 10, as practicable. Simple, journal-like design.	1,250–2,500 words; extended content may be published in Web site edition.	Photos and other illustrations
Science Feature	General-interest articles about science and applied science in national parks. Attributed to author. Submit with brief list of key words and one- or two-sentence article summary (i.e., descriptive blurb).	New and ongoing park studies and resource management projects; successful applications of research findings; new technologies, research methodologies, and discoveries; national and local programs; science-based management decisions; partnerships; and other topics.	Popular science; often solicited or assigned. Anecdotes and compelling stories are vehicles for describing research applications to management. May quote from subject-matter expert(s). Section headers. First- or third-person. Magazine-like design.	650–1,250 words	Photos and other illustrations
State of Science	General-interest articles that describe the state of science in NPS resource management related to a particular topic, issue, or program. Attributed to author(s). Submit with brief list of key words and one- or two-sentence article summary (i.e., descriptive blurb).	Draws upon and synthesizes multiple studies, long-term research, and resource management projects in and out of parks. Highlights the translation of scientific information into usable knowledge for park managers. May discuss future directions for scientific inquiry, including what new science brings to park management and what new park challenges bring to science.	Popular and accessible. Insights, distillations, commentary, and interpretations acceptable. Section headers. First- or third-person. Magazine-like design.	650–1,250 words	Photos and other illustrations

Article Type	Description	Purpose or Possible Topics	Style and Design	Length	Illustrations
Departments	Regularly occurring, short sections that fulfill particular content goals and purposes.		Generally magazine-like design.		Show project location, staff engaged in fieldwork, equipment, and focal subject matter.
20 Years Ago in Park Science	Selected, reprinted material from or reflections on a 20-year-old issue of *Park Science*. Not attributed.	Enlightens readers on past perspectives of NPS science and natural resource management.	Multiple brief excerpts; a longer, individual excerpt; or a brief, solicited article. Magazine-like design.	*Excerpt:* 25–100 words *Article:* 250–500 words	Past issue cover or photos
At Your Service	Newsworthy announcements and updates about NPS personnel, milestones, and events in natural resource management. May be attributed. Submit with brief list of key words.	Policy directives, executive orders, and legislation; funding opportunities and initiatives; recognition of newly hired, retired, or celebrated staff; and interesting NPS news or statistics.	Third-person. Magazine-like design.	25–250 words each	Photos
Comments and Corrections	Readers' comments and corrections to earlier issues. Attributed to writer(s).	Corrections, interpretations, and commentary related to scientific topics or facts presented in articles.	Edited for tone, length, and clarity. First-person. Conservative design.	25–350 words each	Corrected data, graphs, tables, or charts, as applicable

Article Type	Description	Purpose or Possible Topics	Style and Design	Length	Illustrations
Field Moment	Photograph and caption highlighting a resource manager's or researcher's field experience conducting a scientific activity in a national park. Photo credit, but text not attributed. Submit with brief list of key words.	May illustrate a larger NPS issue or professional perspective. Examples: witnessing rare or interesting wildlife behavior or natural events; personal epiphanies related to conservation work; perspectives on contributing to ecological preservation; appreciation of textbook or classic examples of physical or biological park features, resources, or processes.	Typically runs on back cover or inside back cover. Fun, personal, and evocative. Third-person, with quotations. Magazine-like design.	50–200 words	Single, intriguing photo
From the Editor	Editor's or guest editor's introduction and summary of the issue. Attributed to editor. Submit with brief list of key words.	Draws attention to interesting, compelling, or timely articles or management issues. May introduce theme of "In Focus" department.	Insights, distillations, commentary, and interpretations acceptable. First-person. Magazine-like design.	250–350 words	Photos
Information Crossfile	Synopses of selected publications relevant for natural resource management. Articles, summaries, and reviews may be attributed; abstracts and annotations not attributed. Submit with brief list of key words.	Sources include journal articles, books, Web sites, maps, electronic publications, and popular press publications. May highlight publications by NPS authors (see "NPS in Print").	Critical appraisals, interpretations, and commentary acceptable (though no personal anecdotes) for articles, summaries, and book reviews. Abstracts and annotations are descriptive. Third-person (first- or third-person for reviews). Conservative design.	*Articles:* 500–1,000 words *Summaries:* 250–500 words *Reviews:* 750–1,000 words *Abstracts:* up to 250 words *Annotations:* one or two sentences	Optional Optional Reproduction of book cover Optional Optional

Article Type	Description	Purpose or Possible Topics	Style and Design	Length	Illustrations
Meetings of Interest	Calendar listing and brief reviews of conferences, symposia, meetings, and specialized training opportunities. Reviews attributed to author(s).	Synopsizes meeting purpose and planned content, and describes cost, how to register, and other information. Post-meeting reviews briefly recount important aspects of the gathering for resource managers.	Published in Web site edition only. Updated regularly. Third-person. Simple design.	*Listings:* 75–150 words each *Reviews:* 250–500 words each	N/A Photos (for reviews)
Notes from Abroad	International contributions to science-based conservation of protected areas. Attributed to author(s). Submit with brief list of key words and one- or two-sentence article summary (i.e., descriptive blurb).	International projects and programs with relevant conservation messages for science-based management of U.S. national parks.	First- or third-person. Magazine- or journal-like design (depending on topic and treatment).	750–1,500 words	Photos and other illustrations
NPS in Print	Subsection of "Information Crossfile." May be attributed. Submit with brief list of key words.	Draws attention to new and interesting books, reports, articles, and other publications by and about NPS resource managers and researchers. May highlight broadly applicable reports published in the Technical and Resource Management report series.	Third-person. Conservative design.	See "Information Crossfile"	Optional (e.g., report covers)

Article Type	Description	Purpose or Possible Topics	Style and Design	Length	Illustrations
Park Operations	Articles about the use of science in interpretation, visitor and resource protection, facilities management, and administration in parks, with a focus on the improvement of resource management as a result. Attributed to author(s). Submit with brief list of key words and one- or two-sentence article summary (i.e., descriptive blurb).	Explores how science informs and clarifies park operational decisions and practices, and how park operations support and enhance science-based management of park resources. Examples: scientific evaluation of interpretive programs, and the application of mowing, road de-icing chemicals, and avalanche control.	First- or third-person. Magazine- or journal-like design (depending on topic and treatment).	650–1,250 words	Photos and other illustrations
Profile	Interviews, biographies, and career reflections of resource professionals. Attributed to author(s). Submit with brief list of key words and one- or two-sentence article summary (i.e., descriptive blurb).	Highlights people who have helped integrate science into park management (e.g., an influential researcher or resource manager, visionary science administrator, or retiring resource professional). Shares insights into science and management issues.	Popular science with conversational tone. First- or third-person. Magazine-like design.	Up to 1,500 words (extended content featured in Web site edition, as needed).	Photos
Remembrance/ Tribute	Occasional obituaries of a researcher or resource manager. May be attributed. Submit with brief list of key words and one- or two-sentence article summary (i.e., descriptive blurb).	Highlights contributions of an individual to field of expertise and science-based management of national parks.	May include personal stories and anecdotes. Third-person. Magazine-like design.	650–750 words	Photos

Article Type	Description	Purpose or Possible Topics	Style and Design	Length	Illustrations
Science Notes	Condensed articles about science and applied science in national park units. Attributed to author(s). Submit with brief list of key words.	Brief reports and updates about original research and resource management projects, including preliminary findings. See "Science Features" for other topic possibilities.	Third-person. Magazine-like design.	250–500 words each	Photos and other illustrations